



Introduction to ArcGIS Online Part 1

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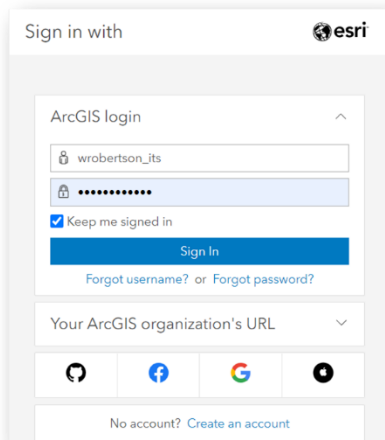
AGENDA

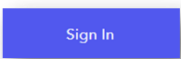

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Copy and paste the following link in your Browser:

<https://idaho.maps.arcgis.com/home/webmap/viewer.html?webmap=e55f8b02155e470d8a53d3e530d6ddac>

1. Really, What is it? *Let's Fire it Up!*



- ① Open Browser and visit 'arcgis.com'
- ② Click on  or 
- ③ Use you ArcGIS Online user account and password to sign in

TIP

Use Google Chrome 



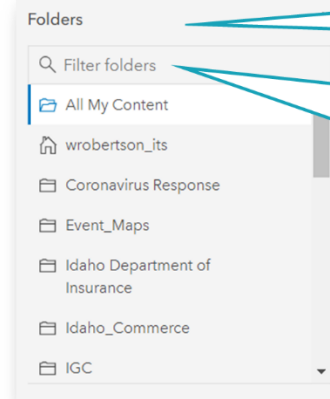
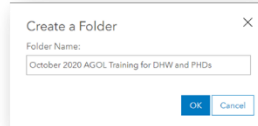
2. Explore the ArcGIS Online Interface: Folders

- Organize your **items** in folders
- Create a new folder for this class:

1 Click on 

2 Give your folder a name ("ITS AGOL Training 20200107". Remember the name of this folder and save all your exercise results to it as we continue.

3 Click OK



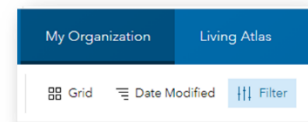
Content from all your folders

Any content not in a folder.
Challenge: keep this empty by organizing all your items in folders

2. Explore the ArcGIS Online Interface: Items

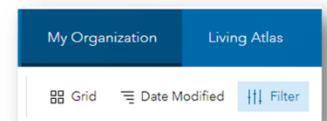
4 Click on **My Organization** to see what items your organization has

5 Click on **Grid** and explore what the items look like as a Table, in a Grid or in a List.



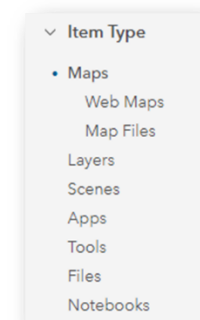
6 Click on **Date Modified** and note the options you have for filtering items

7 Click on **Filter** and notice the filters appearing and disappearing on the left-hand side of your screen



8 Switch to viewing the items in the "Table View"

9 Click on the Maps filter on the left-hand side and look at the table of items. What do you notice about the icon for each layer?



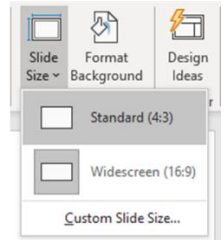
2. Explore the ArcGIS Online Interface: **Thumb Nails**

10 Open a new PowerPoint Presentation

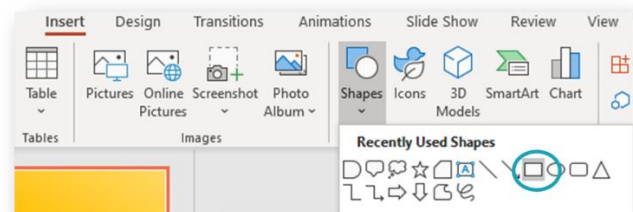
File Home Insert **Design** Transitions

11 Click on Design in the menu along the top and on Slide Size. Set to standard.

12 Click on Format Background and pick a color, texture, picture or gradient you like



13 On the Insert menu click on shapes and select a rectangle

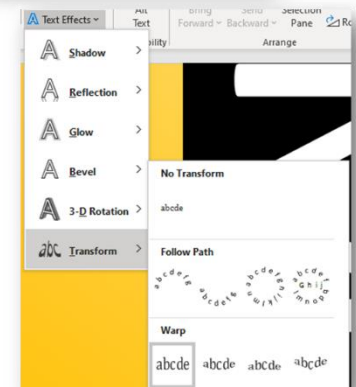


14 Type in the type of item the thumb nail is for. Select the rectangle and then click on Format along the top menu, and then on Text Effects (in the WordArt Styles section)

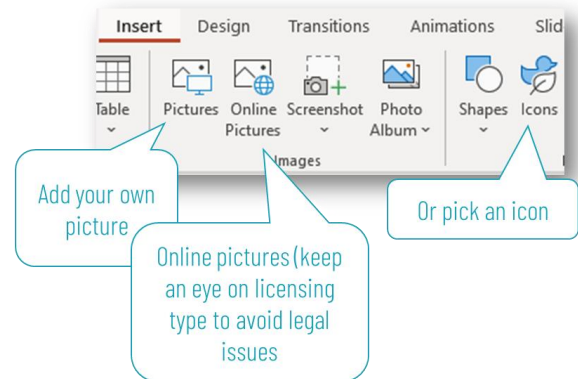


15 Click on Transform and then on the "abcde" below "Warp" on shown on the right. I like this effect because it fill up the entire rectangle

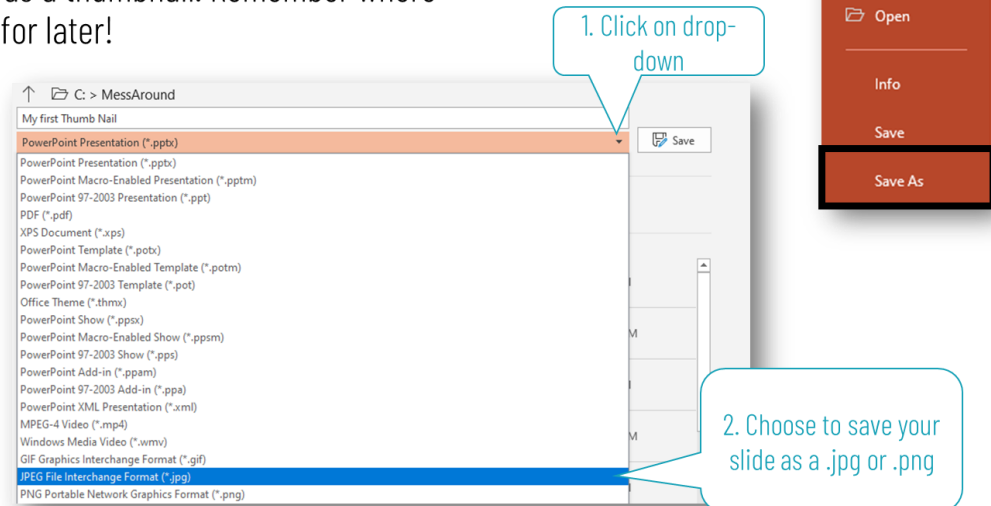
16 Use the handle on top of the rectangle (⦿) to rotate and move the box to the right-hand side. Change the font color, rectangular fill and outline colors to match your theme or preferences



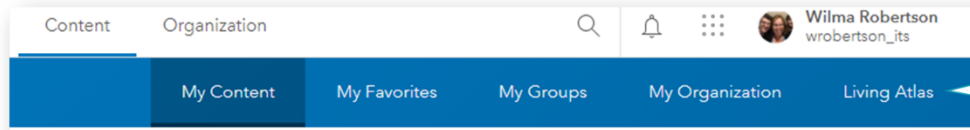
- 17 Add in a text box, or another rectangle to describe the name of your content
- 18 Add any pictures or icons that further describe your item
- 19 Save your PowerPoint presentation as a .pptx for future use



- 20 Click on File (top-left corner) and then "Save As"
- 21 Save your PowerPoint presentation as a .jpg or .png to use as a thumbnail. Remember where you save it for later!

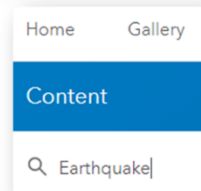


2. Explore the ArcGIS Online Interface: **The Living Atlas**



Find items in the Living Atlas

- 22 Click on **Living Atlas**
- 23 Do a Search for "Earthquakes"
- 24 Click on the card for "Recent Earthquakes"
 - When was it last updated?
- 25 Leave this browser tab open for a later exercise



Authoritative

Part of the Living Atlas

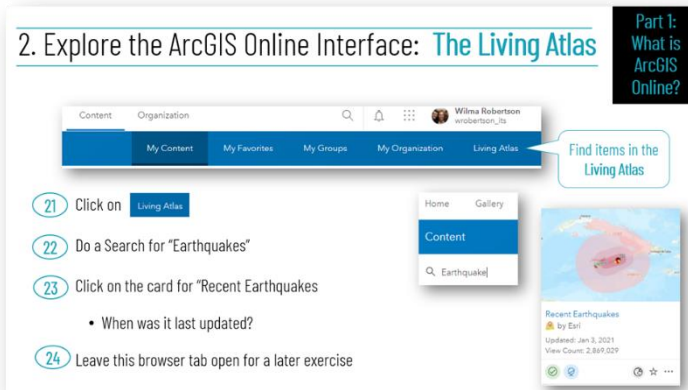
3. Users and Licensing

Part 1:
What is
ArcGIS
Online?

No exercises in this Chapter

4. Making and Saving a Map

2. Explore the ArcGIS Online Interface: The Living Atlas



- 1 Recall the Living Atlas page you left open..
- 2 Hover over the image and click on "Open in Map Viewer"

- 3 Click on  Save

4

Save Map

Title:

Categories: Assign Category

Tags:



Summary:

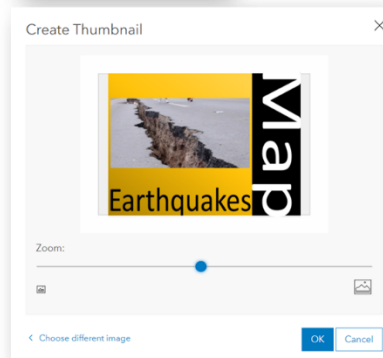
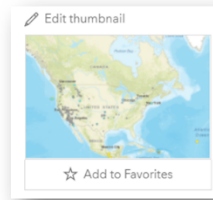
Save in folder:

Short, but informative, title

Tags allows you, and other to search for items

Select the folder you created earlier

- ⑤ Click on  About
- ⑥ Click on [More Details...](#)
- ⑦ Click on Edit Thumbnail
- ⑧ Click on  [Browse...](#) and go to the .png thumbnail you created earlier
- ⑨ Adjust the Zoom slider to fit the thumbnail and click OK



5. Making your Map Better: the Attribute Table

- ① Open the Attribute Table
- ② Scroll the table to the right to see that there are many different columns or **Attributes**
- ③ Click on "Magnitude" and sort Descending. How strong is the strongest earthquake in this table? When and where did it occur?

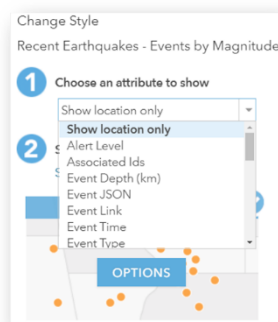
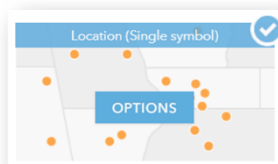
Recent Earthquakes - Events by Magnitude (Features: 1919, Selected: 0)

Event ID	Magnitude	Event Type	Significance	Alert Level	Location	Hours Old	Event Time
ak020da7vc	Sort Ascending Sort Descending Statistics	thquake	697	GREEN	19 km ESE of Elmendorf Air Force Base, Alaska, USA	1,930	10/15/2020, 10:05 AM
ak020ec6yf	5.0	earthquake	885	GREEN	2 km E of Big Lake, Alaska, USA	1,382	11/7/2020, 5:23 AM

- ④ Click again on the Attribute Icon to close the table

5. Making your Map Better: Symbolizing Data



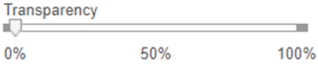

- ⑤ Click on "Change Style"
- ⑥ You have a couple of different options ways to symbolize:
- ⑦ Click on Show location only
- ⑧ Click on Options

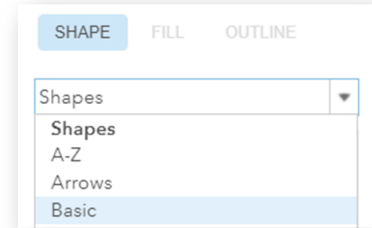


- **Show Location Only:** all points are the same size and color
- **Symbolize by Category:** for example, by Alert Level so that each alert level is a different color
- **Symbolize by Quantity:** for example, by Magnitude. Stronger magnitudes are larger points, or have a different color

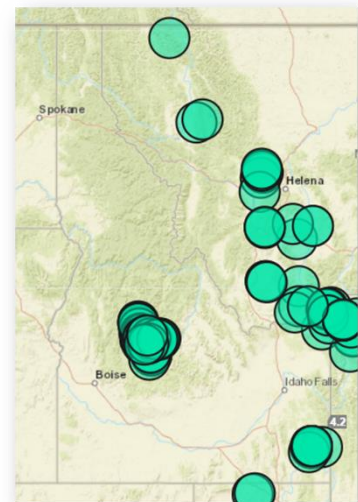
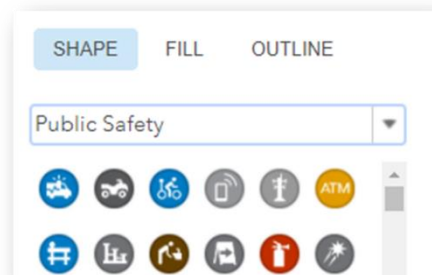
- 9 Click on **Symbols**
- 10 Click on the drop-down and pick Basic. We will start her to get you to become more familiar with the symbol properties you can set

- 11 Click on  You can change the

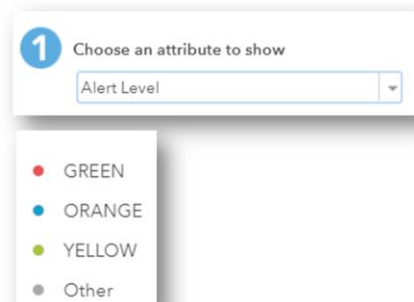
- **Size** (set to 25) 
- **Inside color**. Click on **FILL** and pick any color you like or click on  to have no fill color
- **Transparency of the inside**. At 0% you cannot see the map underneath the symbol. At 100% the symbol is invisible 
- **Outside line color**. Click on **OUTLINE** and again pick a color and set the transparency.
- **Outside line width**: change the outside line width to 2 



- 12 Click on **OK** twice. Look at the change on your map.
- 13 Click on Change Style again to open the symbol selector again. Still use the "Select Location Only" and click on "Options".
- 14 Click on symbols, and then click on the drop-down to look at some different symbol libraries – for example, the one on public safety



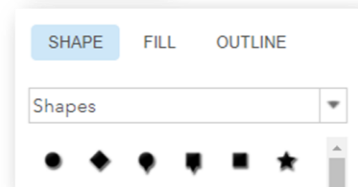
- 15 Next, we will symbolize by a Category. Click again on the "Change Style" icon. This time click on the drop-down and choose Alert Level
- 16 You can see that there are three different categories: Green, Orange and Yellow. Click on **OPTIONS**
- 17 Ironically, the "Green" alert is now colored red. So, let's fix that. Click on the symbol in front of the word "Green" to open up the symbol selector



18 Click on SHAPE, Click on the drop-down and then select "Shapes"

19 Set the Symbol Size to 30, and then pick a Green shape for the GREEN category.

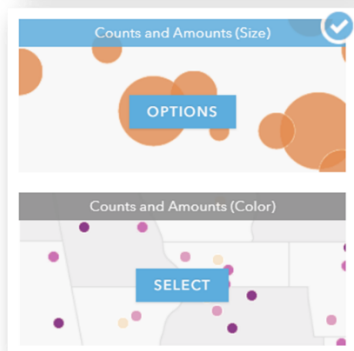
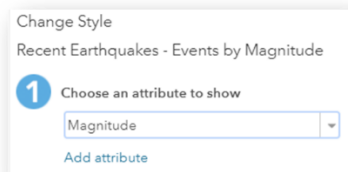
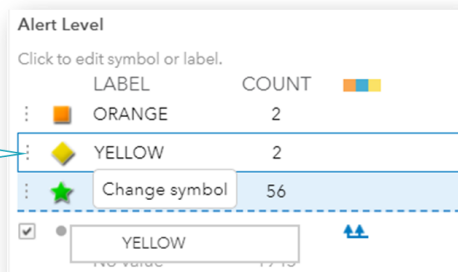
20 Repeat and pick an orange symbol for the ORANGE alert and a yellow one for the YELLOW alert



21 Go back and symbolize your categories in a way that may be easier to interpret by a color-blind person, while keeping the least prepared person in mind who expects the GREEN alert to be green.

22 You can move symbols up and down

Click on the three dots and then drag your label where you want it

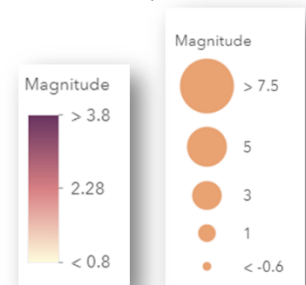


23 Click again on the Style Selector for the "Recent Earthquakes - Events by Magnitude" layer. This time select "Magnitude" from the drop-down. We are going to style by quantity

24 For points there are two ways to use the symbol to use express quantity, either by Size or by Color. Click on either option to see the result.

25 Save your map and keep it open

More symbolization
in AGOL 2 Class!



5. Making your Map Better: Pop-Ups

- 26 Click on any of the Earthquakes on the map to bring up the Pop-Up. Do you like it?
- 27 Click on the ... to bring up the side menu, and click on Configure Pop-Up
- 28 Note the different ways to set up a Pop-Up:

The default. Most often seen, but not always the best or most professional looking

Just one attribute displayed

Customized - like the one on this map.

Extent the data you can put in a pop-up using Expressions in Arcade. AGOL 2

Pop-up Contents

Display: A custom attribute display

Configure

Attribute Expressions

Adding expressions allows you to create new information from existing fields for use in pop-ups

ADD

PAGER {expression/expr0}

TSUNAMI {expression/expr1}

- 29 Click the + on the right-hand side of the title and choose {place}

☒ Show Pop-ups

Pop-up Title

Event ID	Magnitude	Event Type	Significance	Alert Level	Location {place}	Hours Old
ak020da7vc	4.0	earthquake	697	GREEN	19 km ESE of Elmendorf Air Force Base, Alaska, USA	1,954
ak020ec6yf	5.0	earthquake	885	GREEN	2 km E of Big Lake, Alaska, USA	1,406

- 30 For the Display choose "A list of field attributes" (Yes, I know that is making it uglier, but this is an exercise, right?)
- 31 Click OK to save the Pop-Up then click on an Earthquake on the map to check it out

Display: A list of field attributes

These field attributes will display:

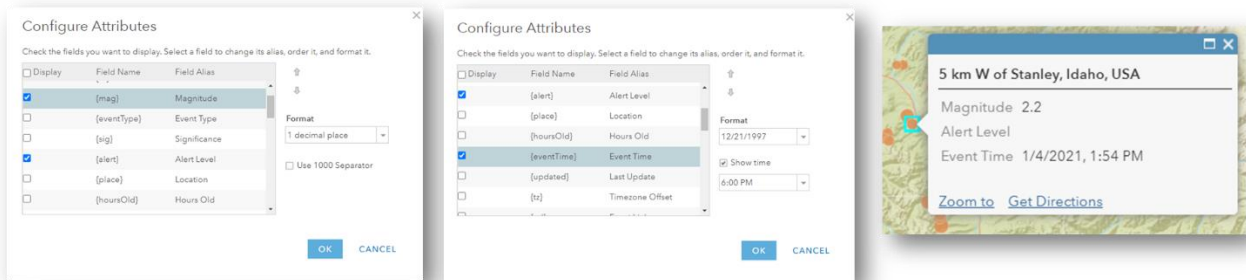
Event ID {id}

Magnitude {mag}

Event Type {eventType}

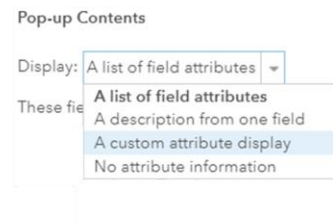
Significance {sig}

- 32 Next, let's choose which attributes we want to display. Go back to "Configure Pop-Up" and click on **Configure Attributes**
- 33 Click on ☒ **Display** to make all the attributes visible. Click on Display again to turn them all off.
- 34 Turn Magnitude, Alert Level and Event Time back on. Note the options you have for displaying certain attributes.



- 35 Open Configure Pop-Up again and choose Custom Attribute Display
- 36 Copy and paste the following text into the dialog:

```
{mag} Magnitude Earthquake
{depth} km depth
({latitude},{longitude})
```



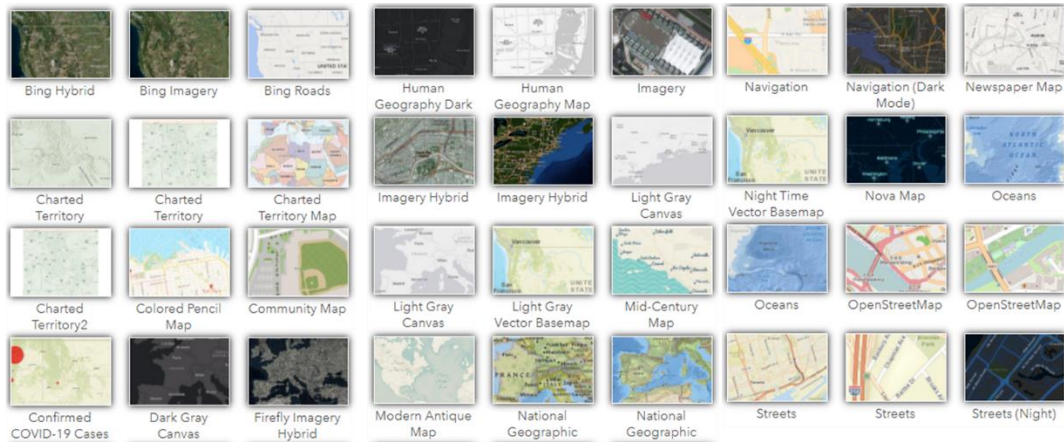
- 37 All the text in {} are replaced by the attribute value for the feature that the user clicked on. Regular text appears exactly as is. You can also change the font, font size and color of the items

- 38 Save your map

Note that I clicked on two features and so there are two pop-ups. Switch between them using the little arrows on the top



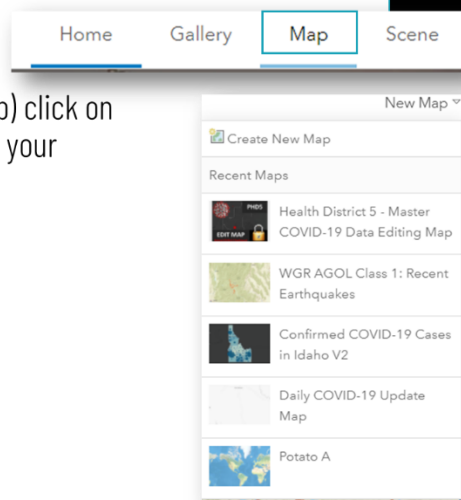
6. Changing the Basemap



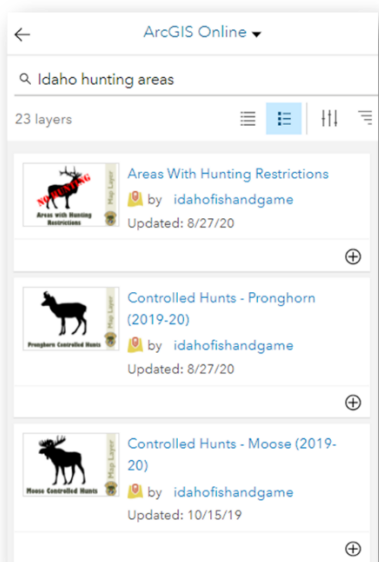
So many to choose from!

7. Adding Data

- ① Let's start with a new map. Click on Map in the main menu:
- ② If there is still content on your map (from your previous map) click on "New Map" in the top-right corner. You can also open one of your recent maps from here.



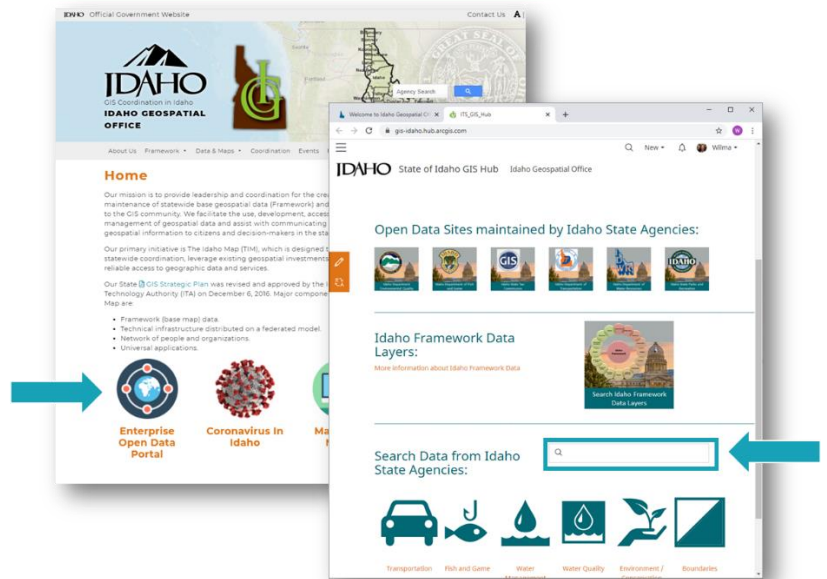
7. Adding Data from ArcGIS Online



- ③ Add > Search for Layers > ArcGIS Online
- ④ Do a search for "Idaho hunting areas"
- ⑤ Click the plus in the bottom right corner to add the controlled hunts for **two** animals with **four legs** each of your choice

7. Adding Data from web service

- 6 Visit gis.idaho.gov
- 7 Click on Enterprise Open Data Portal



- 8 Type "Controlled Hunts" in the Search Box

Search Data from Idaho State Agencies:



Transportation



Fish and Game



Water Management

Search:

- Waterfowl Hunt Areas Data
- Controlled Hunts - Elk (2019 - 20) Data
- Controlled Hunts - Deer (2019 - 20) Data
- Controlled Hunts - Turkey (2020-21) Data

Search: near for location

Conservation

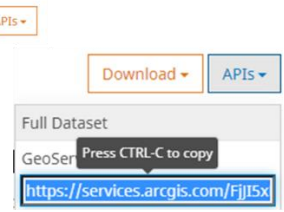
- 9 Click on the Controlled Hunts – Turkey (2020-2021)

Controlled Hunts - Turkey (2020-21)

Last updated 10 months ago | 8 Records

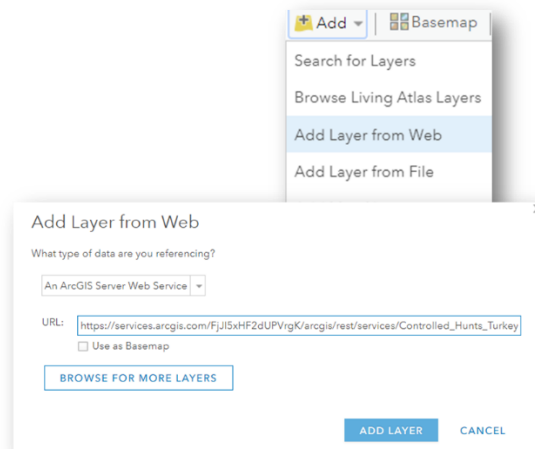


10 Click on APIs and then Press CTRL-C to copy GeoService



11 Click on Add > Add Layer from Web

12 Paste the URL you just copied (DON'T click Add Layers yet..)



https://services.arcgis.com/FjJI5xHF2dUPVrgK/arcgis/rest/services/Controlled_Hunts_Turkey_2020/FeatureServer/0/query?outFields=*&where=1%3D1

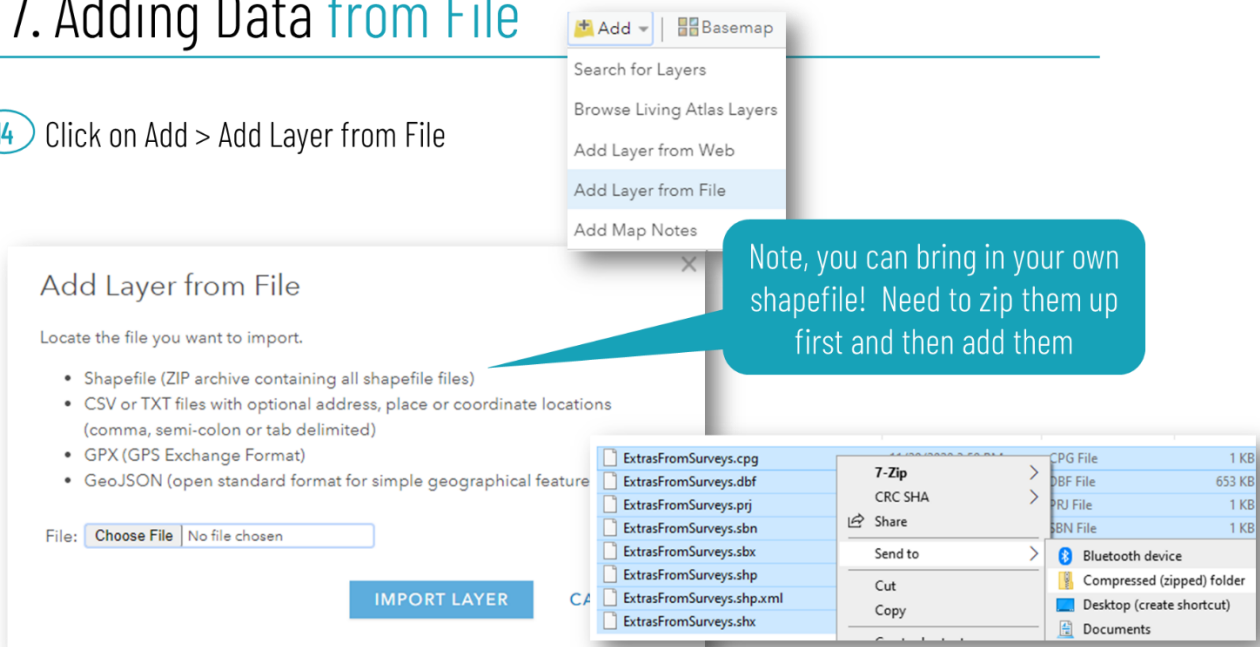
13 Delete the query from the URL (The red parts above). Then click "Add Layer"

Just in case, here is the text in format you can copy and paste:

https://services.arcgis.com/FjJI5xHF2dUPVrgK/arcgis/rest/services/Controlled_Hunts_Turkey_2020/FeatureServer/0

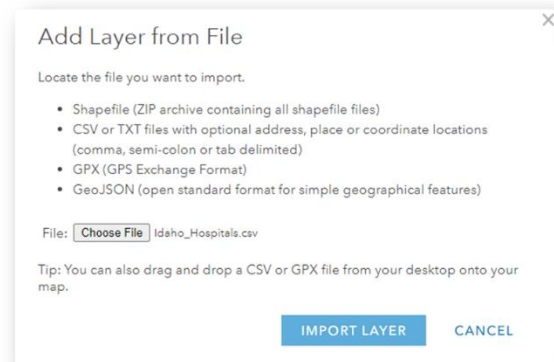
7. Adding Data from File

- 14 Click on Add > Add Layer from File

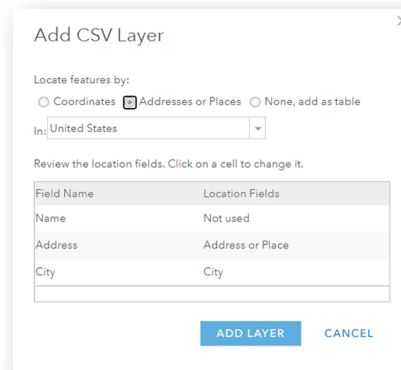


- 15 In the meeting invitation for this training, you can find a table called [Idaho Hospitals.csv](#)

- 16 Save this table to your computer. Click on **Choose File** and select the Idaho Hospitals.csv you just saved.



- 17 Make sure that the "Address" on the left matches "Address or Place" on the right and that "City" matches "City"
- 18 Click Add Layer
- 19 Leave the browser tab open. We will revisit and work more with this hospital layer later



Add CSV Layer

Locate features by:

☐ Coordinates ☒ Addresses or Places ☐ None, add as table

In: United States

Review the location fields. Click on a cell to change it.

Field Name	Location Fields
Name	Not used
Address	Address or Place
City	City

ADD LAYER CANCEL

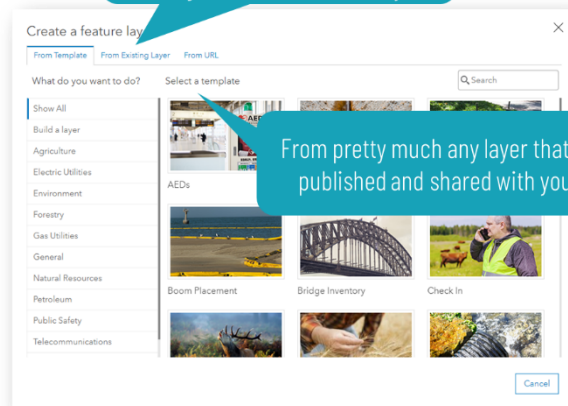
7. Adding Data: Make your Own!

- 20 Click on Content
- 21 Click on Create > Feature Layer
- 22 Let's first build a layer from scratch. Type "Point" in the Search box.



- 23 Click on the "Points" template

Note the various ways you can create a new layer from any layer in the organization shared with you



24 Click **CREATE**

25 If you are collecting data with GPS check the box to also capture GPS accuracy and other information. If your data will include elevation, check the "Z Values" box. For now, just click **Next**

26 Click **Done** (Be patient, it may take 10-15 seconds before the layer is done)

27 Next, we need to add some fields (attributes) where we can store data. Click on **Data**

28 Go to the **Fields** view

29 Click **+ Add**

30 Add the following fields:

31 Make a drop-down list for gender: click on **Gender**

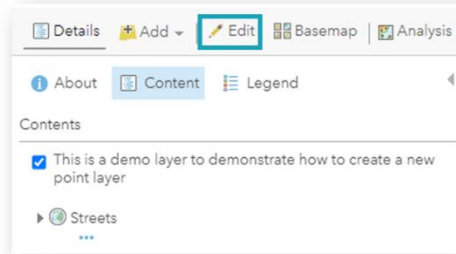
32 Click **Create List**


33 Complete as follows:

34 Click **Save**

35 Click **Overview** and then **Open in Map Viewer**

36 Click on Edit

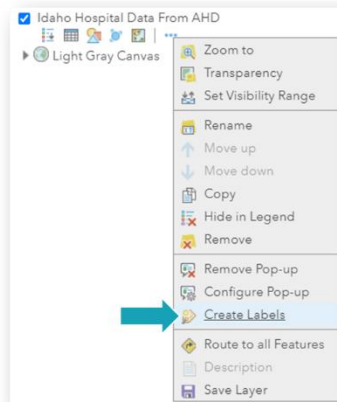


37 Click on  and then click anywhere on the map where you want to place the new point.

A screenshot of the 'New Feature' dialog box for a point layer. The dialog has a title bar that reads 'This is a demo layer to demonstrate how to create a new point layer'. It contains several input fields: 'Name' with the value 'Justine', 'Age' with the value '65', and 'Gender' with a dropdown menu showing 'Male' and 'Female'. Below these is an 'Attachments' section with a 'None' button. At the bottom, there is an 'Add' section with a 'Choose File' button and the text 'No file chosen'. Below that, it says 'Edited by wrobertson its seconds ago'. At the very bottom are two buttons: 'DELETE' and 'CLOSE'.

8. Adding and Managing Labels

- ① Go back to your map with the Hospitals you created earlier
- ② Click on ... and choose "create labels"



- ③ Pick which attribute you want to display as a label
- ④ Choose font and font size
- ⑤ Choose where, relative to the hospital, you want to place the label
- ⑥ Choose the scales at which the label should appear.

Current scale

OK

7

9. Document it! An Introduction to Metadata

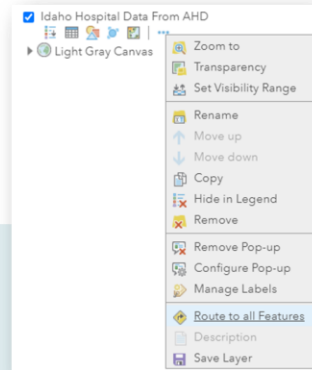
Currently the hospitals are still just a table, without any metadata.

- 1 We need to save the Hospitals as a proper layer, and also save the map. Click on ... and choose "Save Layer"

Title: Hospitals in Idaho

Tags: Hospitals, Idaho, AHD, AGOL Training

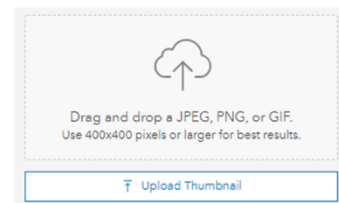
Summary: Hospitals in Idaho along with their address, city as well as the total number of staffed beds, total discharges and patient days per year. Data is obtained from the American Hospital Directory (AHD) and downloaded on October 11, 2020



- 2 Click again on ... and choose "Item Description" to see how the metadata appears on the Item Page

10. Groups: Create a Group

- 1 Click on Groups
- 2 Click on [Create group](#)
- 3 Click on "Upload Thumbnail" – select the picture of the dog you received in your class invitation or one you picked yourself
- 4 Fiddle with the zoom level according to preference
- 5 Name your group "Your Name – Test Group for AGOL 1 Class"
- 6 Give it a short summary. For Tags enter "Temporary", "AGOL Class"



The following settings depend on the purpose and content of your group

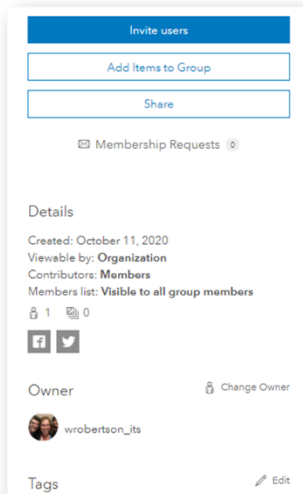
- Who can view this group?
- ☐ Only group members
 - ☐ People in the organization (State of Idaho)
 - ☒ Everyone (public)
- Who can join this group?
- ☐ Those who request membership and are approved by a group manager
 - ☒ Only those invited by a group manager
 - ☐ Anyone
- Who can contribute content to the group?
- ☒ Group members
 - ☐ Only group owner and managers
- What items in the group can its members update? ⓘ
- ☒ Only their own items
 - ☐ All items (group membership is limited to the organization)

- Who can see the list of members on the Members tab?
- ☒ All group members
 - ☐ Only group owner and managers
- Note: Group owner and managers are always shown. Item owners will not be hidden for content in the group.
- Sort group content by
- Title ☒ Ascending
- By default, display the following type of item on the group page
- All Apps Files Maps Layers Scenes Tools
- Administrative group
- ☐ Members cannot leave this group. Only the group owner or a group manager can remove members from this group.
- Open Data
- ☐ Allow this group to be accessed in Open Data sites

Only check if you have a good reason to do so

Do not check unless you really know what you are doing. Typically managed by the administrator/curator of your organizational account

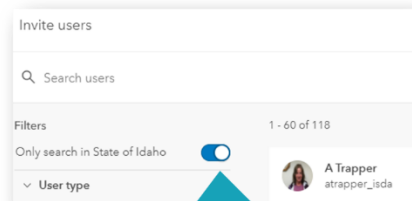
10. Groups: Invite Members



⑦ Currently your group as only one member (you!) and no content has been shared with it.

⑧ Click on "Invite users"

Invite 1-2 people you know. Just in case, my username is wrobertson_its



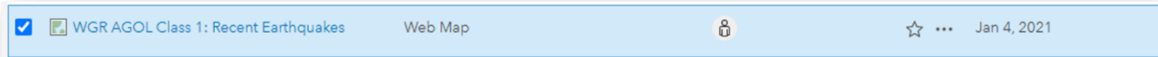
Move slider to the left if you are looking for members outside your organization. Note, depending on how your administrator set up your AGOL, this may be disabled

11. Sharing Data, Map and Simple Web Application

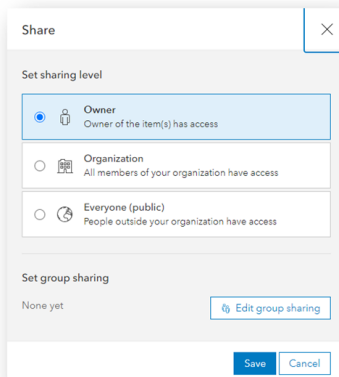
Now your group has members, but still no content. You could use

Add Items to Group

- 1 Click on **Content** along the top of your screen, and find the Earthquake map you created earlier. Click on the check box on the left-hand side of the item (switch to **Table** View if necessary)


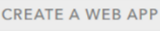





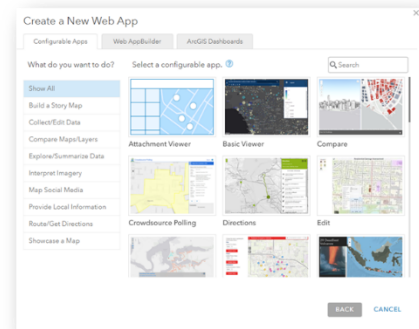
- 2 Click on **Share** at the top of the table of items



- 3 Check all the boxes displaying who you want to share with
- 4 Click on Edit Group Sharing
- 5 Check the boxes in front of all the groups you want to share with
- 6 Click OK and then click Save
- 7 Along the top click on Group and then open the Group you just created. Verify that you can see the item that you just shared with this group

11. Sharing Data and Map using a Web Application

- 8 Open your Earthquake map in a Map Viewer
- 9 Click on  along the top of your map
- 10 Note that you can also set your sharing permission on this page
- 11 Click on 
- 12 Go to the **Web AppBuilder** tab and then click 
- 13 Explore your options (more in AGOL 2) and click on  and then click on 



What differences do you see between a map and a mapping application?

12. How Secure is AGOL?

Part 3:
Sharing
your Maps
and Data

ArcGIS—Secure and Trustworthy

Trust.ArcGIS.com is your go to resource for security, privacy, and compliance information



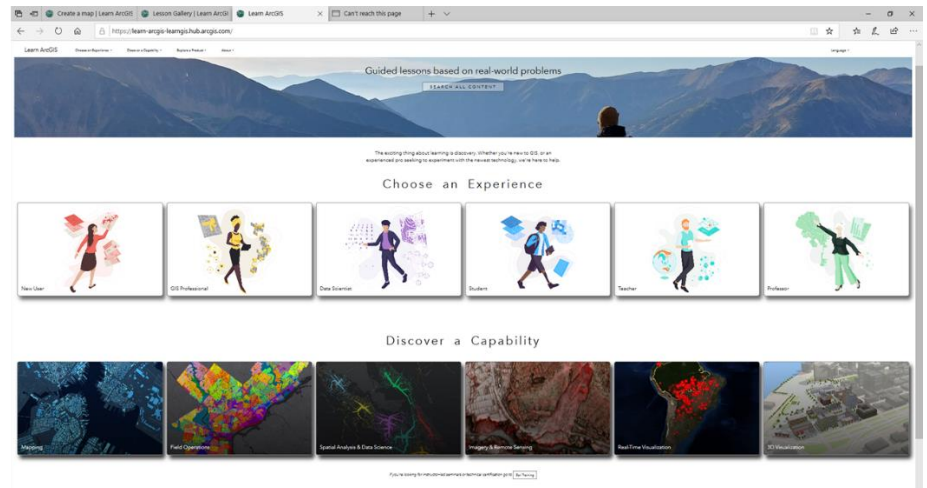
FedRAMP



<https://trust.arcgis.com/en/>

No HIPAA Data, Credit Card or Social Security Number Numbers!

Tip: great learning tool



<https://learn-arcgis-learnngis.hub.arcgis.com/>

What's Next?

Getting Started with ArcGIS Online 2

- Creating different types of pop-ups
- Creating your own feature services
- Turning your map in an application
- Using templates
- Using Basic Application Builder
- Using routing, directions, geocoding and other services
- Performing analyses
- Using Arcade for labelling and customization
- Working with attachments: photo's, files, bars and charts

Future Classes

- 1/19/2021: Survey123 Part 1
- 1/28/2021: Survey123 Part 2
- 2/ 9/2021: Getting Started with Dashboards
- 2/18/2021: Getting Started with ArcGIS Online Part 2
- 3/ 2/2021: Getting Started with Story Maps
- 3/11/2021: Getting Started with Quick Capture
- 3/23/2021: Getting Started with Maps for Office
- 4/ 1/2021: Building Initiatives on ArcGIS Hub
- 4/13/2021: Getting Started with Experience Builder



Check out all the classes and their descriptions [here](#)